

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

EnvironX, LLC

New Mexico Manufacturing Extension Partnership

New Mexico MEP Helps Environx, LLC Prepare for Manufacturing

Client Profile:

Environx, LLC (Environx) is a full service solar installation contractor of solar products like photovoltaic panels and solar thermal systems. Environx's current business model is one of design, assembly and installation. They meet with potential customers to design a custom solar solution for their home. Once the design is set, they purchase all of the necessary products based on the unique design. Finally, they assemble the unit and install it on the customers' home. Environx employs 4 people at its facility in Mountainair, New Mexico.

Situation:

Environx decided to manufacture their own brand of solar air collectors and solar hot water collectors. They purchased an existing business that made roughly 100 units per year. With some inherited contracts and some new contracts near the closing stages, Environx wanted to set up their facility to handle the manufacturing of 5,000 units per year. Environx LLC needed to have a profound understanding of the manufacturing process for each of their collecting units. They wanted to identify the approximate time to manufacture the solar air collectors and solar hot water collectors and capture actual data and understanding of their plant layout, cycle times, lead times, inventory requirements and capacity. Not having any manufacturing experience, Environx contacted the New Mexico Manufacturing Extension Partnership (New Mexico MEP), a NIST MEP network affiliate, for assistance.

Solution:

New Mexico MEP proposed a Value Stream Mapping (VSM) assessment for the company which focused on improvement efforts and pinpointed problem solutions that would give the most value for the company's money, time, and energy. The assessment consisted of the following steps: 1) create a 'current state' map of the steps involved in manufacturing solar air collectors and solar hot water collectors, and calculate the machine and assembly time needed to complete each process; 2) create a 'future state' map to identify the most desirable production flow of the solar air collectors and solar hot water collectors and create the future state maps for each product; and 3) create an action plan documenting the necessary information Environx would need to move forward with manufacturing each product. The current and future state VSMs identified several supply questions for Environx LLC. These included aluminum, construction adhesive, glass and other raw materials. Environx LLC determined vendor options, lead times, pricing, delivery concerns, dry times, chemical properties and other specifications. The company also had questions on the feasibility of painting and powder coating within their factory. Research of local vendors and their prices needed to be complete within one month. They also researched the cost of and requirements and certifications needed to build and operate their own paint booth or powder coating area. As sales trend upward, Environx is moving toward their goal of 5,000 units per day. They are in the process of expanding to Las Cruces, New Mexico giving them access to new customers increasing their market opportunity.

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Results:

- * Reduced lead time from 4 weeks to 2 days.
- * Expanded market visibility.
- * Anticipated creation of 12 jobs.

Testimonial:

"Our team found the steps in the value stream mapping process to be very instructive and informative. We were able to formalize our idea of manufacturing solar air collector panels and solar hot water collector panels into a step-by-step road map that provides a blueprint for our build-out and operational management."

Don Pearson, Owner